

BR450ELCD/BR650ELCD/BR850ELCD User's Manual

K01-000056-00

SAFETY WARNINGS

(SAVE THESE INSTRUCTIONS)

This manual contains important safety instructions. Please read and follow all instructions carefully during installation and operation of the unit. Read this manual thoroughly before attempting to unpack, install, or operate your UPS.

This equipment can be operated by any individuals with no previous training.

The socket-outlet shall be installed near the equipment and easily accessible.

During the installation of this equipment it should be assured that the sum of the leakage currents of the UPS and the connected loads does not exceed 3.5mA.

Attention, hazardous through electric shock. Also with disconnection of this unit from the mains, hazardous voltage still may be accessible through supply from battery. The battery supply should be therefore disconnected in the plus and minus pole at the quick connectors of the battery when maintenance or service work inside the UPS is necessary.

Do not dispose of batteries in a fire, the battery may explode.

Do not open or mutilate the battery or batteries, released electrolyte is harmful to the skin and eyes.

INSTALLING YOUR UPS SYSTEM

UNPACKING

Inspect the UPS upon receipt. The box should contain the following:

(1)UPS Unit×1; (1)Phone Line×1;(3)USB Cable×1;(4)User Manual×1;(5)Management software Disk×1;(6)Green Power Technology description×1;(7)Battery Charger×1;(8)Cable Collector×1

HOW TO DETERMINE THE POWER REQUIREMENTS OF YOUR EQUIPMENT

1. Insure that the equipment plugged into the battery power-supplied outlets does not exceed the UPS unit's rated capacity (450VA/270W for BR450ELCD, 650VA/390W for BR650ELCD, 850VA/510W for BR850ELCD). If rated unit capacities are exceeded, an overload condition may occur and cause the UPS unit to shut down or the fuse blow.
2. If the power requirements of your equipment are listed in units other than Volt-Amps (VA), convert Watts (W) or Amps (A) into VA by doing the calculations below. Note: The below equation only calculates the maximum amount of VA that the equipment can use, not what is typically used by the equipment at any one time. Users should expect usage requirements to be approximately 60% of below value.

TO ESTIMATE POWER REQUIREMENTS

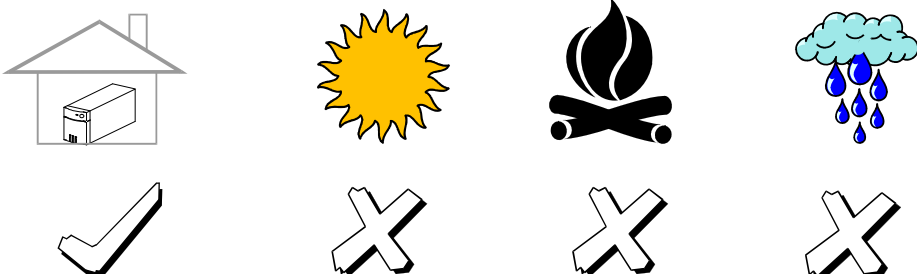
1. _____ Watts (W) x 1.67 = _____ VA or _____ Amps (A) x 230 = _____ VA
2. Add the totals up for all pieces of equipment and multiply this total by 0.6 to calculate actual requirements. There are many factors that can affect the amount of power that your computer system will require. Suggest the total load to be placed on the battery-powered outlets should not exceed 80% of the unit's capacity.

HARDWARE INSTALLATION GUIDE

Before installation, please read and understand the following instructions:

1. Placement

The UPS must be installed in a protected environment away from heat- emitting appliances such as a radiator or heat register. Do not install this product where excessive moisture is present.



2. Ventilation

The location should provide adequate air flow around the UPS with one inch minimum clearance on all sides for proper ventilation.

3. Charge the Battery

Your new UPS may be used immediately upon receipt. However charge loss may occur during shipping and storage. So charging the battery for at least 8 hours is recommended to insure that the battery is fully charged. (To recharge the battery, simply leave the unit plugged into an AC outlet.)

This UPS can be charged even when UPS is not turn on.

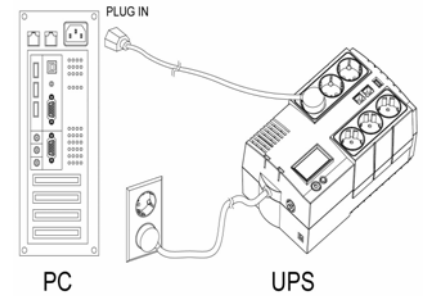
4. Connect to AC

Use power cord to connect the UPS to a wall outlet. Please avoid using extension cords and adapter plugs. (To maintain optimal battery charge, leave the UPS plugged in at all times.)

5. Connect the Load

Connect the equipment to your UPS outlets. The IEC power cord coming with the unit are used to connect your computer and monitor to the UPS.

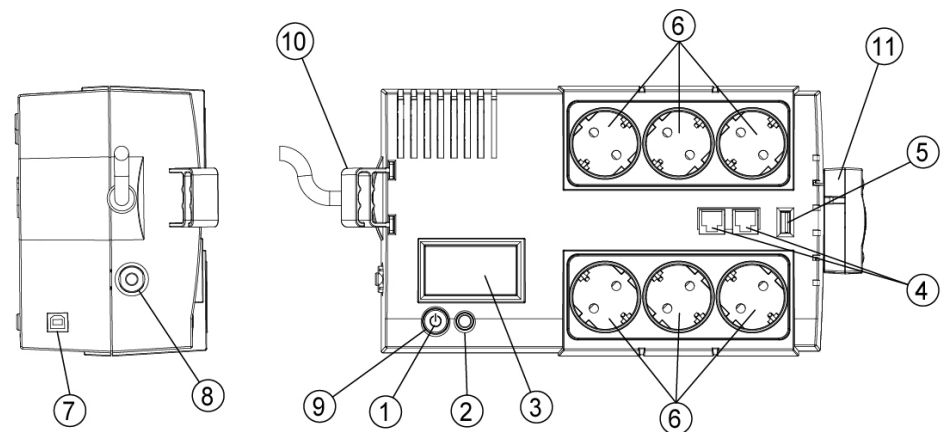
Items such as copiers, laser printers, vacuums, space heaters, or other large electrical devices SHOULD NOT be connected to the UPS. Please make sure that the total loads of your equipments are less than the maximum total power load of your UPS.



6. Connect to Computer

Install your software and accessories. To use the software, simply use the USB cable to connect the UPS unit and your computer.

BASIC OPERATION



1. Power On/Off Switch

Press the power switch to turn the UPS ON or OFF.

2. LCD Function Selected Switch

Press the LCD function selected switch to know the UPS status.

3. LCD Display

The LCD will display the UPS status including input voltage, output voltage, runtime, percentage of load and battery...etc.

4. Communication Protection Ports RJ11/RJ45

Communication protection ports will protect any standard modem, fax, telephone line, or network cable from surge and spikes.

5. Battery Charger port

Charge external AA/AAA battery via battery charger port with battery charger.

6. AC outlet

The UPS provides 3 outlets for connected equipment to insure temporary uninterrupted operation during a power failure and against surges and spikes and another 3 outlets against surges and spikes only.

7. USB Port to PC

This port allows connection and communication from the USB port on the computer to the UPS unit. The UPS communicates its status to the **PowerPanel® Personal Edition** software. This interface is also compatible with the UPS service provided by **Windows NT, Windows 2000, Windows XP, Windows Vista. Mac OSX, Linux.**

8. Input Circuit Breaker

The Circuit Breaker provides optimal overload protection.

9. Power on LED

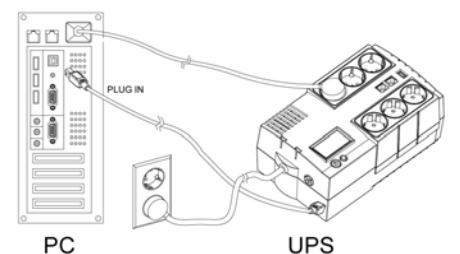
The power on LED lights up when the UPS is ON.

10. Cable Collector

Collect the cables connected from the AC outlets in the cable collector.

11. Battery Charger

Put external AA/AAA batteries into the battery charger for charge.



Functional Test

AC Mode

The UPS delivers power to the loads derived from the utility and maintains proper battery charge. It also regulates the output voltage to within a narrow range.

On-Battery Mode

The UPS operates on battery when the line voltage or frequency has fallen outside the limits. Local users are alerted to this mode of operation by visual and audible indicators. The UPS provides power to the load from the battery and through its inverter and the output voltage and frequency of the UPS are regulated within a narrow range

1. **Switch On**
Press the power switch on the top panel then the "power on" LED will light up.
2. **Switch Off**
Press again the power switch, the "power on" LED on the top panel will go off.
3. **Cold Start / Start on Battery:**
This UPS can be turned on even when AC is not present.
Press the power switch on the top panel then the "power on" LED will light up.

ROUTINE MAINTENANCE AND STORAGE

ROUTINE MAINTENANCE

1. Use dry soft clothes to clean the top panel and plastic parts. Do not use any detergent that contains alcoholic ingredient.
2. The expected lifetime of the battery is around 3 years. Improper operation and harsh environment will reduce the actual lifetime.
3. Unplug the UPS from power inlet if the UPS will not operate for long period of time.

STORAGE

1. First turn off your UPS and disconnect its power cord from the wall outlet. Disconnect all cables connected the UPS to avoid battery drain.
2. The UPS should be stored in a cool dry location.
3. Make sure the battery is fully charged before the UPS is stored.
4. For extended storage in moderate climates, the battery should be charged for 12 hours every 3 months by plugging the power cord into the wall receptacle. Repeat it every 2 months in high temperature locations.

TROUBLE SHOOTING

Problem	Possible Cause	Solution
The UPS does not perform expected runtime.	The battery is not fully charged.	Recharge the battery by leaving the UPS plugged in.
	The battery is slightly worn out.	Contact CyberPower Systems at service@cyberpower-eu.com
The UPS will not turn on.	The on/off switch is designed to prevent damage by rapidly turning it off and on.	Turn the UPS off. Wait 10 seconds and then turn the UPS on.
	The unit is not connected to an AC outlet.	The unit must be connected to a 220-240V 50/60Hz outlet.
	The battery is worn out.	Contact CyberPower Systems at service@cyberpower-eu.com
Outlets do not provide power to equipment	Mechanical problem.	Contact CyberPower Systems at service@cyberpower-eu.com
	The circuit breaker is tripped due to overload.	Turn the UPS off and unplug at least one piece connected equipment. Unplug the power cord of the UPS then remove the fuse compartment beneath the power inlet of the UPS and replace the blown fuse with a spare one. Lock the compartment back to the UPS. Connect power cord then turn the UPS on. Make sure that your spare fuse meets the specification.
	The battery is discharged	Allow the unit to recharge for at least 4 hours.
	The unit has been damaged by a surge or spike.	Contact CyberPower Systems at service@cyberpower-eu.com
PowerPanel® Personal Edition is inactive (all icons are gray).	The USB cable is not connected.	Connect the USB cable to the UPS unit and an open serial port on the back of the computer. You must use the cable that came with the unit.
	The USB cable is connected to the wrong port.	Try another USB port of your computer.
	The unit is not providing battery power.	Shutdown your computer and turn the UPS off. Wait 10 seconds and turn the UPS back on. This should reset the unit.
	The serial cable is not the cable that was provided with the unit.	You must use the cable included with the unit for the software.

TECHNICAL SPECIFICATIONS

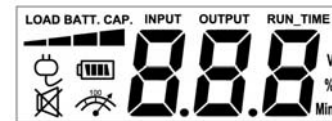
Model	BR 450ELCD	BR 650ELCD	BR 850ELCD
Capacity (VA)	450VA	650VA	850VA
Capacity (Watts)	270W	390W	510W
Input			
Input Voltage Range	165-270Vac		
Frequency Range	50/60 Hz +/- 3Hz (Auto Sensing)		

Output			
On Battery Output Voltage	Simulated Sine Wave at 230Vac +/-10%		
On Battery Output Frequency	50/60 Hz +/-1%		
Overload Protection	Yes		
Physical			
Total # of UPS Receptacles	Schuko*6 (3 for battery backup and surge ;3 for surge)		
Dimensions(mm)	271(L) x160.7(W) x113.6(H)		
Weight (kg)	4.4	5.5	6.4

Battery			
Sealed Maintenance Free Lead Acid Battery	12V / 4.5Ah x1	12V / 7Ah x1	12V / 9Ah x1
Typical Recharge Time	8 Hours		
Warning Diagnostics			
Indicators	Power On		
Audible Alarms	On Battery, Low Battery, Overload		
Environmental			
Operating Temperature	+32°F to 104°F (0°C to 40°C)		
Operating Relative Humidity	0 to 85% NON-CONDENSING		
Communication			
PowerPanel® Personal Edition Software	Windows2000/NT/XP/Server 2003/Vista/Mac OSX, Linux		
Management			
Auto-Charger	Yes		
Auto-Restart	Yes		
USB Interface	Yes		
Other Features			
Green Power	Yes (Energy saving technology)		
Batter Charger	External AAA/AA battery charger, connection via USB charger		

DEFINITIONS FOR ILLUMINATED LCD INDICATORS

LCD Indication



Line mode

Select SW	UPS Status Display				Capacity Display		Digital Value Display				
	⏻	🔋	⚡	🌐	Load Cap.	Battery Cap.	Input Voltage	Output Voltage	Run Time	% of Load	% of Batt.
Initial	V	X	--	X	V	X	V	V			
1st	V	X	--	X	V	X			V		
2nd	V	X	--	X	V	X				V	
3rd	V	X	--	X	V	X					V
4th	V	X	--	X	V	X	V				
5th(Return)	V	X	--	X	V	X		V			
Press >3sec (Sound Disable)	V	X	V	X	--	--	--	--	--	--	--
Press >3sec again (Sound Enable)	V	X	X	X	--	--	--	--	--	--	--
(Overload)	V	X	--	V	--	--	--	--	--	--	--

"V" : Illuminated, "X" : Not Illuminated, "--" : Either

Battery mode

Select SW	UPS Status Display				Capacity Display		Digital Value Display				
	⏻	🔋	⚡	🌐	Load Cap.	Battery Cap.	Input Voltage	Output Voltage	Run Time	% of Load	% of Batt.
Initial	X	V	--	X	X	V			V		
1st	X	V	--	X	X	V			V		
2nd	X	V	--	X	V	X				V	
3rd	X	V	--	X	X	V					V
4th	X	V	--	X	X	V	V				
5th(Return)	X	V	--	X	X	V		V			
Press >3sec (Sound Disable)	X	V	V	X	--	--	--	--	--	--	--
Press >3sec again (Sound Enable)	X	V	X	X	--	--	--	--	--	--	--
(Overload)	X	V	--	V	--	--	--	--	--	--	--

"V" : Illuminated, "X" : Not Illuminated, "--" : Either

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CyberPower warrants to you, the original purchaser, that CyberPower UPS will be free from defects in design, assembly, materials and workmanship for two years (battery is only one year) from the date of original purchase. Any warranty services, please contact your local dealers or distributors.